

REMARKS

The Office Action dated May 1, 2006, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 6 -21 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claims 22-29 have been added. No new matter has been added, and no new issues are raised which require further consideration and/or search. Claims 1-29 are submitted for consideration.

Claims 11 and 13 were objected to because of informalities. Claims 11 and 13 have been amended to overcome this objection. Therefore, Applicant requests that this objection be withdrawn.

Claims 1-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2001/0009845 to Feuchtinger in view of U.S. Patent Application No. 2006/0046750 to Deschenes. According to the Office Action, although Feuchtinger teaches all of the elements of claims 1-18, Feuchtinger does not teach generating signaling parameters for controlling the radio link and communicating at least one of the signaling parameters between the sub-terminal and the infrastructure via the subscriber terminal. Thus, the Office Action combined Feuchtinger and Deschenes to yield all of the elements of claims 1-18. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claims 1, 6, 11, 13 and 18.

Claim 1, upon which claims 2-5 and 22-23 depend, recites a method of communicating in a wireless telecommunications system including a subscriber terminal and an infrastructure. The method including connecting the subscriber terminal to the infrastructure over a wireless interface, the subscriber terminal holding a subscriber identity in the wireless telecommunications system and connecting the subscriber terminal to at least one sub-terminal over a proximity wireless interface, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The method also includes requesting a radio link from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal and generating signalling parameters for controlling the radio link. The method further includes communicating at least one of the signalling parameters between the sub-terminal and the infrastructure via the subscriber terminal.

Claim 6, upon which claims 7-10 and 24-25 depend, recites a terminal system of a wireless telecommunications system. The wireless telecommunications system includes an infrastructure. The terminal system includes a subscriber terminal and at least one sub-terminal, wherein the subscriber terminal includes connecting means for connecting the subscriber terminal to the infrastructure and subscriber identity means for holding a subscriber identity of the subscriber terminal in the wireless telecommunications system. The at least one sub-terminal uses the subscriber identity of the subscriber terminal and includes receiving means for providing a radio link directed from the infrastructure to the at least one sub-terminal, the radio link being controlled on the basis of signalling

parameters. The subscriber terminal includes requesting means connected to the connecting means, for requesting the radio link. The terminal system includes signalling means connected to the connecting means, for communicating at least one of the signalling parameters between the subscriber terminal and the infrastructure. The terminal system includes proximity signalling means connected to the signalling means, for communicating the at least one of the signalling parameters between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

Claim 11, upon which claim 12 and 26-27 depend, recites a subscriber terminal of a wireless telecommunications system. The wireless telecommunications system includes an infrastructure. The subscriber terminal includes connecting means for connecting the subscriber terminal to the infrastructure and subscriber identity means for holding a subscriber identity of the subscriber terminal in the wireless telecommunications system. The subscriber terminal also includes requesting means connected to the connecting means, for requesting a radio link directed from the infrastructure to at least one sub-terminal, the at least one sub-terminal using the subscriber identity of the subscriber terminal, the radio link being controlled on the basis of signalling parameters. The subscriber terminal further includes proximity signalling means for communicating at least one of the signalling parameters with the at least one sub-terminal over a proximity wireless interface and signalling means connected to the connecting means and the proximity signalling means, for communicating the at least one of the signalling parameters between the subscriber terminal and the infrastructure.

Claim 13, upon which claims 14-17 and 28 depend, recites a sub-terminal of a wireless telecommunications system. The wireless telecommunications system includes an infrastructure and a subscriber terminal connected to the infrastructure and holding a subscriber identity in the wireless telecommunications system, the sub-terminal using the subscriber identity of the subscriber terminal. The sub-terminal includes receiving means for providing a radio link directed from the infrastructure to the sub-terminal, the radio link being controlled on the basis of signalling parameters communicated between the subscriber terminal and the infrastructure, the radio link being requested by the subscriber terminal. The sub-terminal also includes proximity signalling means for communicating at least some of the signalling parameters between the subscriber terminal and the sub-terminal over a proximity wireless interface.

Claim 18, upon which claims 19-21 and 29 depend, recites a radio resource control system for controlling radio resources in a wireless telecommunications system including an infrastructure and a subscriber terminal connected to the infrastructure, the subscriber terminal holding the subscriber identity in the wireless telecommunications system. The radio resource control system includes access control means for controlling access of at least one sub-terminal to the infrastructure on the basis of an access request from the subscriber terminal, the at least one sub-terminal using the subscriber identity of the subscriber terminal. The radio resource control system also includes controlling means connected to the access control means, for controlling a radio link directed from the infrastructure to at least one sub-terminal, the radio link being controlled on the basis

of signalling parameters and signalling means for communicating at least one of the signalling parameters between the infrastructure and the subscriber terminal, the at least one of the signalling parameters being communicated between the subscriber terminal and the at least one sub-terminal over a proximity wireless interface.

As outlined below, Applicant submits the combination of Feuchtinger and Deschenes does not teach or suggest the elements of the presently pending claims.

Feuchtinger discloses a subscriber terminal unit for a communication system shown in FIG. 1, which combines a portable radiotelephone terminal 1 of a cordless telephone handset or mobile network type which takes the form of a unit designed to be held near the head of the user when communicating and a complementary terminal 2 which is usually a desktop or wall-mounted terminal. The complementary terminal constitutes a home station, for example. The two terminals are designed to be used in conjunction by a user to communicate by means of the mobile terminal 1 via a communication network 4 to which the mobile terminal 1 is linked by radio. A call is set up via a relay radiotelephone transceiver station 3, either directly as symbolized by the radio link L1 for the mobile terminal 1 or via the mobile terminal 1 from the complementary terminal 2, as symbolized by the radio links L2 and L1 respectively set up between the terminals 1 and 2, on the one hand, and between the terminal 1 and the relay transceiver station 3, on the other hand. It can also be set up via a radio link L3 set up between the complementary terminal 2 and the relay station 3. See at least paragraph 14.

Feuchtinger further discloses that terminals 1 and 2 together form a communication terminal unit 5 made available to a subscriber, for example a DECT, CT0 or CT1 cordless telephone, including a home station (fixed part) corresponding to the complementary terminal 2 and a cordless handset (mobile part) with control keys and corresponding to the mobile terminal 1. See at least paragraph 15. The terminal unit 5 can also be a subscriber radiotelephone unit of a radiotelephone network, in particular a mobile telephone network such as a GSM network. The mobile terminal 1 is then a pocket (mobile) device which can communicate by radio with a relay transceiver station, such as the station 3, and possibly with a complementary terminal 2, depending on the terminal unit configuration chosen. See at least paragraph 16.

Feuchtinger also discloses in Figure 3 and paragraph 28 that the detection of a home station 2' having the required identity and power characteristics is used internally by the mobile terminal 1' and/or communicated by radiotelephone to the relay transceiver station 3', used conjointly by the mobile terminal 1' and the home station 2' on the occasion of a particular radiotelephone call. The relay transceiver station 3' can be used to inform the home station 2' that its broadcast control channel frequency has been detected by the mobile terminal 1', as reported by radiotelephone by the terminal to the relay station, see paragraph 29.

According to paragraph 31 of Feuchtinger, the portable radiotelephone terminal is adapted and programmed to serve as a relay between the complementary terminal 2" and the relay transceiver station 3" for exchange of call signals and/or signaling via the two

radiotelephone links L2 and L1 connected end-to-end in the portable radiotelephone terminal when it is within radio range of the complementary terminal 2" and the relay station 3".

Deschenes discloses a system to provide cellular handset operational status information to wireless carriers relating to insertion or proximity of mobile cellular handsets to a hybrid fixed wireless interface (HFWI) device. Upon handset coupling to a HFWI, by insertion of the handset into a receiving connector on the HFWI or proximity of the handset to the HFWI, the system controls the handset to update the signalling protocol to inform the wireless carrier of an interfaced and operational operation mode. See at least the abstract. An HFWI features a transceiver which can be separated manually by the user from the interface device. This is because the radio transceiver is typically a conventional mobile cellular phone, rather than a radio transmitter and receiver device enclosed in a packaged unit. The portable mobile cellular phone can be freely coupled or uncoupled by the user to and from the HFWI through the physical placement of the mobile telephone handset on the HFWI which also serves the purpose of a battery charger, with electrical connectors on the mobile telephone handset mating to electrical connectors on the HFWI. See at least paragraph 4.

With reference to Figure 1 and paragraph 36 of Deschenes, a system inside the HFWI 12 prompts the handset 10, through the dataport 14, to update a flag in the air interface signalling protocol over transmission means 16 indicating to the wireless carrier network that the handset has entered the interfaced operational mode of operation.

Alternatively, the air interface signalling protocol over transmission means 16 indicates an interfaced operational mode of operation may have been pre-programmed in the handset 10 as a second signalling protocol and may be resident in the handset together with a first signalling protocol meant to indicate a mobile mode of operation. Processing inside the HFWI would select the appropriate signalling protocol to be used by the handset after interfaced operational fixed or mobile status or mode is determined. An indication as to the correct signalling protocol to be used would be transmitted to the wireless carrier network automatically during normal updates transmitted between the handset and wireless carrier network 18 over transmission means 16.

Applicant submits that the combination of Feuchtinger and Deschenes simply does not teach or suggest the combination of elements recited in the presently pending claims. Each of claims 1, 6, 11, 13 and 18, in part, recites the at least one sub-terminal using the subscriber identity of the subscriber terminal. The Office Action relates the portable radio telephone terminal, the complementary terminal (home station) and the relay station of Feuchtinger to the subscriber terminal, the sub-terminal, and the infrastructure, respectively, recited in the presently pending claims. Based on this relation, Feuchtinger fails to disclose that the sub-terminal uses the subscriber identity of the subscriber terminal. Instead, according to paragraph 28, of Feuchtinger “ the detection of a home station 2' having the required identity and power characteristics is used internally by the mobile terminal 1' and/or communicated by radiotelephone to the relay transceiver station 3', used conjointly by the mobile terminal 1' and the home station 2' on the occasion of a

particular radiotelephone call.” This teaching of Feuchtinger suggests that the sub-terminal indeed holds an identity, which is communicated to the relay transceiver station and leads an ordinary skilled in the art away from using the teachings of Feuchtinger to obtain the at least one sub-terminal using the subscriber identity of the subscriber terminal, as recited in claims 1, 6, 11, 13 and 18.

Feuchtinger also fails to disclose that a radio link be requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal, as recited in claims 1, 6, 11, 13 and 18. Contrary to the interpretation of the Office Action, paragraph 32 of Feuchtinger does not teach this feature. Instead, paragraph 32 of Feuchtinger discloses that the portable radiotelephone terminal includes transmit and receive modules enabling it to communication simultaneously and bi-directionally via a radiotelephone link L1 with a relay transceiver station 3” within whose area it is at least temporarily located and via a radiotelephone link L2 with a complementary terminal 2” it is within range of. Paragraph 32 of Feuchtinger further discloses that operation of the complementary terminal 2” in conjunction with the relay transceiver station 3” is then totally dependent on the presence of the portable radiotelephone terminal within the radio range of the complementary terminal 2”, assuming that the portable radiotelephone is also within radio range of the relay transceiver system 3”.

Feuchtinger also fails to disclose that signalling parameters be generated for controlling the radio link, as recited in claims 1, 6, 11, 13 and 18. In addition, the Office

Action admits that Feuchtinger fails specifically to teach generating the signalling parameters for controlling the radio link and communicating at least one of the signalling parameters between the sub-terminal and the infrastructure via the subscriber terminal. However, the Office Action indicated that Deschenes teaches signalling protocols for controlling a radio link. The system of Deschenes includes the HFWI device and a mobile cellular handset. According to the definition of the HFWI given in paragraph 4 of Deschenes, "the radio transceiver is typically a conventional mobile cellular phone, rather than a radio transmitter and receiver device enclosed in a packaged unit". Accordingly, the HFWI is not capable of forming a radio link with the infrastructure, and thus does not require signalling parameters for controlling a radio link. Therefore, an ordinary skilled in the art would not have taken Deschenes as an information source, since the HFWI cannot be related to a complementary terminal of Feuchtinger.

Furthermore, Deschenes refers to a signalling protocol, not to signalling parameters for controlling a radio link. As disclosed in the abstract, the signalling protocol is to inform the wireless carrier of an interfaced and operational operation mode. In the present invention, as recited in the presently pending claims, the wireless carrier is related to the operation of the handset, not to a radio link between the HFWI and the infrastructure.

Applicant submits that, in Deschenes, there is no radio link between the HFWI and an infrastructure, and therefore, Deschenes does not disclose signalling parameters for controlling a radio link directed from the infrastructure to the at least one sub-terminal.

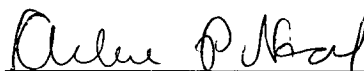
Furthermore, one of ordinary skilled in the art would not have used teachings of Deschenes in order to fill the gaps of Feuchtinger, since a person skilled in the art would have been combined wireless and wired systems, i.e. applied protocols of wired systems to wireless systems. Moreover, Deschenes does not cure the deficiencies of Feuchtinger, as outlined above. Specifically, Deschenes fails to disclose or suggest the at least one sub-terminal using the subscriber identity of the subscriber terminal, that a radio link be requested from the subscriber terminal, the radio link being directed from the infrastructure to the at least one sub-terminal and signalling parameters be generated for controlling the radio link, as recited in claims 1, 6, 11, 13 and 18. Based on the above identified deficiencies, Applicant respectfully asserts that the rejection under 35 U.S.C. §102(b) should be withdrawn because neither Feuchtinger nor Deschenes, whether taken singly or combined, teaches or suggests each feature of claims 1, 6, 11, 13 and 18 and hence, dependent claims 2-5, 7-10, 12, 14-18 and 19-21 thereon.

Accordingly, Applicants respectfully submit that claims 1-29 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-29 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



Arlene P. Neal
Registration No. 43,828

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Tysons Corner, Virginia 22182-2700
Telephone: 703-720-7800
Fax: 703-720-7802

APN:kmp

Enclosures: Additional Claim Fee Transmittal
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